

12. The method of claim 1, wherein the liquid metal carboxylate composition comprises one or more metals selected from the group consisting of Lithium, Beryllium, Sodium, Magnesium, Potassium, Calcium, Scandium, Titanium, Chromium, Manganese, Iron, Nickel, Cobalt, Copper, Zinc, Gallium, Rubidium, Strontium, Yttrium, Zirconium, Silver, Cadmium, Tin, Cesium, Cerium, Barium, Lanthanum, Hafnium, Tantalum, Gold, Thallium, Lead, Bismuth, Cerium, Praseodymium, Neodymium, Samarium, Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium, Lutetium, Thorium and Uranium.

13. The method of claim 11, wherein the metal is a mixture comprising:
up to 10% by weight of yttrium;
up to 5% by weight of chromium; and
the balance zirconium;
wherein the minimum total amount of yttrium is at least 3% and the minimum total of chromium is at least 2%.

14. The method of claim 11, wherein the metal is a mixture comprising:
7 to 8% by weight of yttrium;
2 to 3% by weight of chromium; and
89 to 91% by weight of zirconium.

15. The method of claim 2 wherein the vaporization or dissipation of any excess carboxylic acids in the liquid metal carboxylate composition and